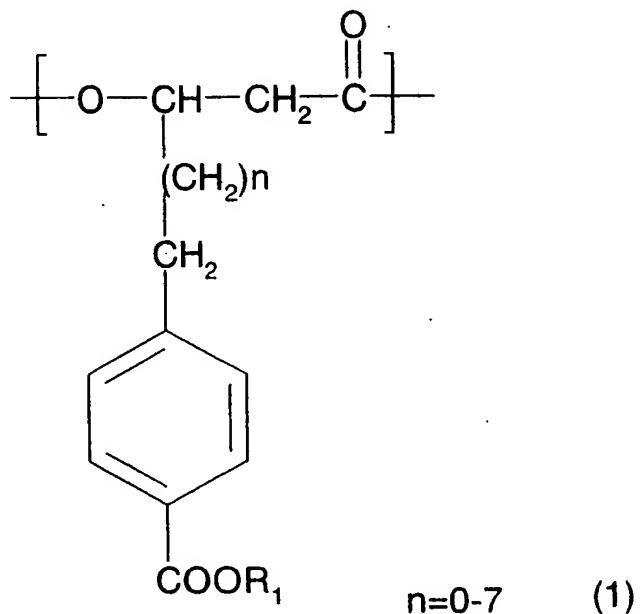


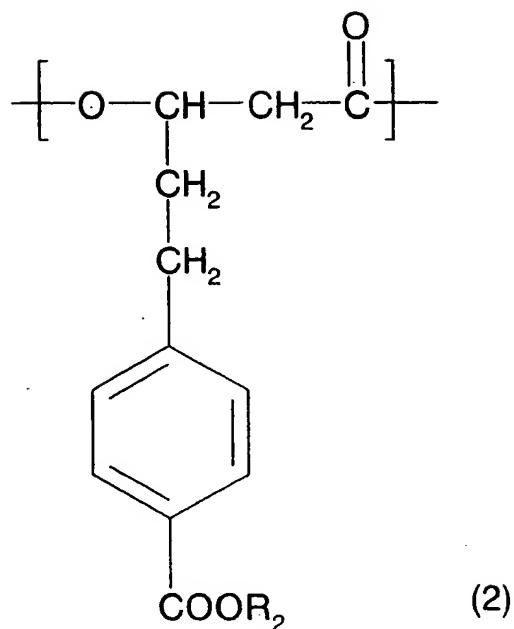
## CLAIMS

1. A polyhydroxyalkanoate containing in a molecule thereof one or more 3-hydroxy- $\omega$ -(4-carboxyphenyl)alkanoic acid units represented by a 5 chemical formula (1):



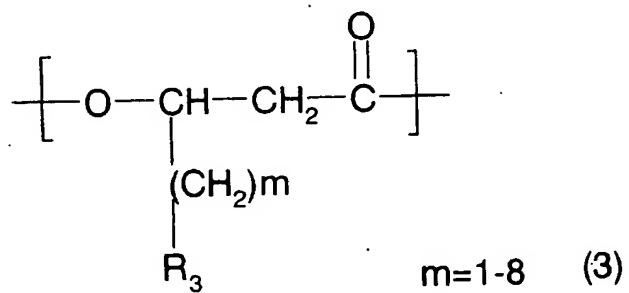
wherein n is an integer selected from 0 to 7; R<sub>1</sub> is an H, Na or K atom; and when more than one unit exists, n and R<sub>1</sub> may differ from unit to unit, respectively.

2. The polyhydroxyalkanoate according to claim 1, wherein the 3-hydroxy- $\omega$ -(4-carboxyphenyl)alkanoic acid unit represented by the chemical formula (1) is a 3-hydroxy- $\omega$ -(4-carboxyphenyl)valeric acid unit represented by a chemical formula (2):



wherein  $R_2$  is an H, Na or K atom and, when more than one unit exists, it may differ from unit to unit.

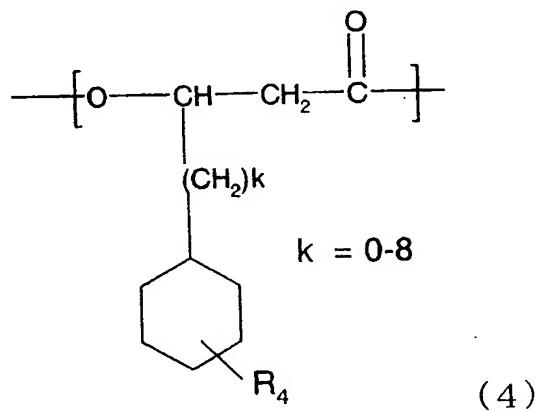
3. The polyhydroxyalkanoate according to claim 1, wherein the polyhydroxyalkanoate contains, besides the 3-hydroxy- $\omega$ -(4-carboxyphenyl)alkanoic acid unit represented by the chemical formula (1), at least either a 3-hydroxy- $\omega$ -substituted alkanoic acid unit represented by a chemical formula (3):



wherein  $m$  is an integer selected from 1 to 8;  $R_3$  comprises a residue having a ring structure of either a phenyl or a thienyl structure; and when more than one unit exists,  $m$  and  $R_3$  may differ from unit to unit,

5 respectively; or

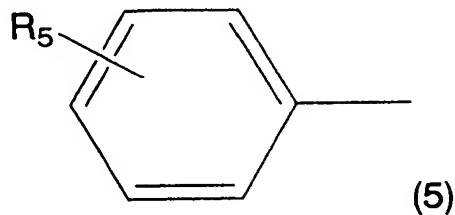
a 3-hydroxy- $\omega$ -cyclohexylalkanoic acid unit represented by a chemical formula (4):



wherein  $R_4$  represents a substituent on a cyclohexyl group and is an H atom, a CN group, an  $NO_2$  group, a halogen atom, a  $CH_3$  group, a  $C_2H_5$  group, a  $C_3H_7$  group, a  $CF_3$  group, a  $C_2F_5$  group or a  $C_3F_7$  group;  $k$  is an integer selected from 0 to 8; and when more than one unit exists,  $k$  and  $R_4$  may differ from unit to unit.

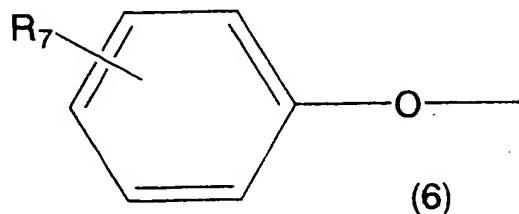
4. The polyhydroxyalkanoate according to claim 1, wherein  $R_3$  in the chemical formula (3) having a phenyl or thienyl structure is at least any one selected from the group consisting of residues represented by chemical formula (5), (6), (7), (8),

(9), (10), (11), (12), (13), (14) and (15), wherein the chemical formula (5) represents a group consisting of unsubstituted and substituted phenyl groups:



wherein  $R_5$  represents a substituent on the aromatic ring and is an H atom, a halogen atom, a CN group, an  $NO_2$  group, a  $CH_3$  group, a  $C_2H_5$  group, a  $C_3H_7$  group, a  $CH=CH_2$  group,  $COOR_6$  ( $R_6$  represents any one of H, Na and K atoms), a  $CF_3$  group, a  $C_2F_5$  group or a  $C_3F_7$  group; and when more than one unit exists,  $R_5$  may differ from unit to unit;

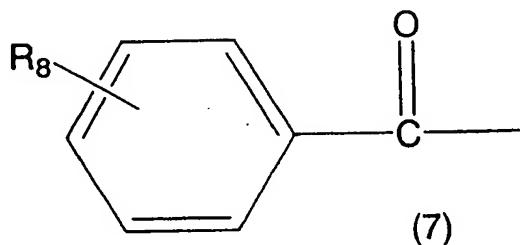
the chemical formula (6) represents a group consisting of unsubstituted and substituted phenoxy groups:



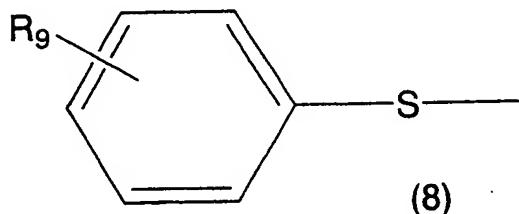
wherein  $R_7$  represents a substituent on the aromatic ring and is an H atom, a halogen atom, a CN group, an  $NO_2$  group, a  $CH_3$  group, a  $C_2H_5$  group, a  $C_3H_7$  group, an

SCH<sub>3</sub> group, a CF<sub>3</sub> group, a C<sub>2</sub>F<sub>5</sub> group or a C<sub>3</sub>F<sub>7</sub> group; and when more than one unit exists, R<sub>7</sub> may differ from unit to unit;

5 the chemical formula (7) represents a group consisting of unsubstituted and substituted benzoyl groups:



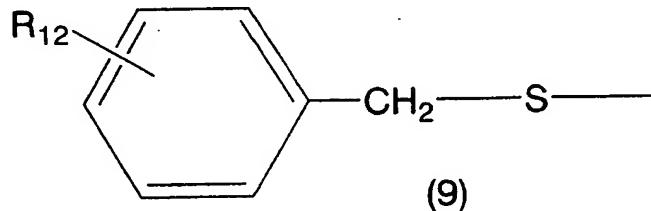
wherein R<sub>8</sub> represents a substituent on the aromatic ring and is an H atom, a halogen atom, a CN group, an NO<sub>2</sub> group, a CH<sub>3</sub> group, a C<sub>2</sub>H<sub>5</sub> group, a C<sub>3</sub>H<sub>7</sub> group, a CF<sub>3</sub> group, a C<sub>2</sub>F<sub>5</sub> group or a C<sub>3</sub>F<sub>7</sub> group; and when more than one unit exists, R<sub>8</sub> may differ from unit to unit; the chemical formula (8) represents a group consisting of unsubstituted and substituted phenylsulfanil groups:



wherein R<sub>9</sub> represents a substituent on the aromatic ring and is an H atom, a halogen atom, a CN group, an NO<sub>2</sub> group, a COOR<sub>10</sub>, an SO<sub>2</sub>R<sub>11</sub> (R<sub>10</sub> represents any one

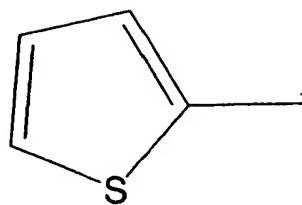
of an H atom, an Na atom, a K atom, a  $\text{CH}_3$  group and a  $\text{C}_2\text{H}_5$  group and  $\text{R}_{11}$  represents any one of an OH group, an  $\text{ONa}$  group, an  $\text{OK}$  group, a halogen atom, an  $\text{OCH}_3$  group and  $\text{OC}_2\text{H}_5$  group), a  $\text{CH}_3$  group, a  $\text{C}_2\text{H}_5$  group, a  $\text{C}_3\text{H}_7$  group, a  $(\text{CH}_3)_2\text{-CH}$  group or a  $(\text{CH}_3)_3\text{-C}$  group; and when more than one unit exists,  $\text{R}_9$  may differ from unit to unit;

the chemical formula (9) represents a group consisting of unsubstituted and substituted (phenylmethyl)sulfanil groups:



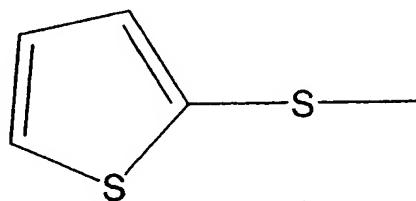
wherein  $\text{R}_{12}$  represents a substituent on the aromatic ring and is an H atom, a halogen atom, a  $\text{CN}$  group, an  $\text{NO}_2$  group, a  $\text{COOR}_{13}$ , an  $\text{SO}_2\text{R}_{14}$  ( $\text{R}_{13}$  represents any one of an H atom, an Na atom, a K atom, a  $\text{CH}_3$  group and a  $\text{C}_2\text{H}_5$  group and  $\text{R}_{14}$  represents any one of an OH group, an  $\text{ONa}$  group, an  $\text{OK}$  group, a halogen atom, an  $\text{OCH}_3$  group and  $\text{OC}_2\text{H}_5$  group), a  $\text{CH}_3$  group, a  $\text{C}_2\text{H}_5$  group, a  $\text{C}_3\text{H}_7$  group, a  $(\text{CH}_3)_2\text{-CH}$  group or a  $(\text{CH}_3)_3\text{-C}$  group; and when more than one unit exists,  $\text{R}_{12}$  may differ from unit to unit;

the chemical formula (10) represents 2-thienyl group:



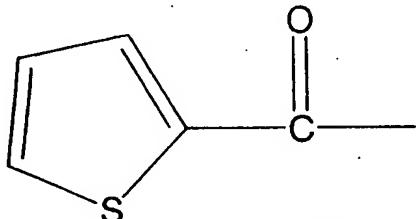
(10)

the chemical formula (11) represents a 2-thienylsulfanil group:



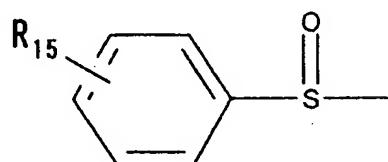
(11)

the chemical formula (12) represents a 2-thienylcarbonyl group:



(12)

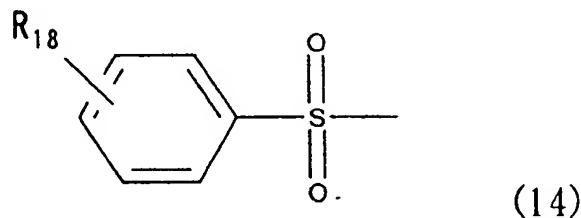
the chemical formula (13) represents a group consisting of unsubstituted and substituted phenylsulfenyl groups:



(13)

wherein  $R_{15}$  represents a substituent on the aromatic ring and is an H atom, a halogen atom, a CN group, an  $NO_2$  group, a  $COOR_{16}$ , an  $SO_2R_{17}$  ( $R_{16}$  represents any one of an H atom, an Na atom, a K atom, a  $CH_3$  group and a  $C_2H_5$  group and  $R_{17}$  represents any one of an OH group, an  $ONa$  group, an  $OK$  group, a halogen atom, an  $OCH_3$  group and  $OC_2H_5$  group), a  $CH_3$  group, a  $C_2H_5$  group, a  $C_3H_7$  group, a  $(CH_3)_2-CH$  group or a  $(CH_3)_3-C$  group; and when more than one unit exists,  $R_{15}$  may differ from unit to unit;

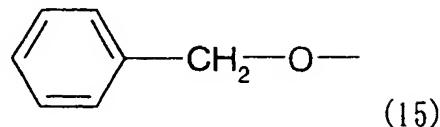
the chemical formula (14) represents a group consisting of unsubstituted and substituted phenylsulfonyl groups:



wherein  $R_{18}$  represents a substituent on the aromatic ring and is an H atom, a halogen atom, a CN group, an  $NO_2$  group, a  $COOR_{19}$ , an  $SO_2R_{20}$  ( $R_{19}$  represents any one of an H atom, an Na atom, a K atom, a  $CH_3$  group and a  $C_2H_5$  group and  $R_{20}$  represents any one of an OH group, an  $ONa$  group, an  $OK$  group, a halogen atom, an  $OCH_3$  group and  $OC_2H_5$  group), a  $CH_3$  group, a  $C_2H_5$  group, a  $C_3H_7$  group, a  $(CH_3)_2-CH$  group or a  $(CH_3)_3-C$  group; and when more than one unit exists,  $R_{18}$  may differ from

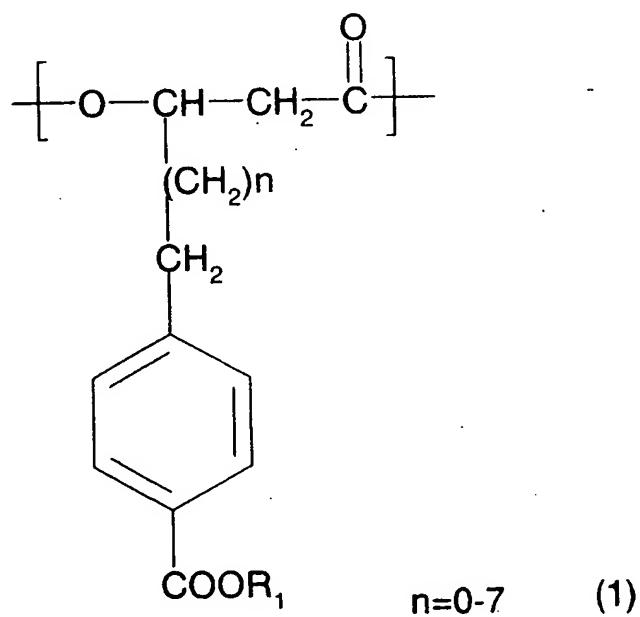
unit to unit; and

the chemical formula (15) represents a group of a (phenylmethyl)oxy group:



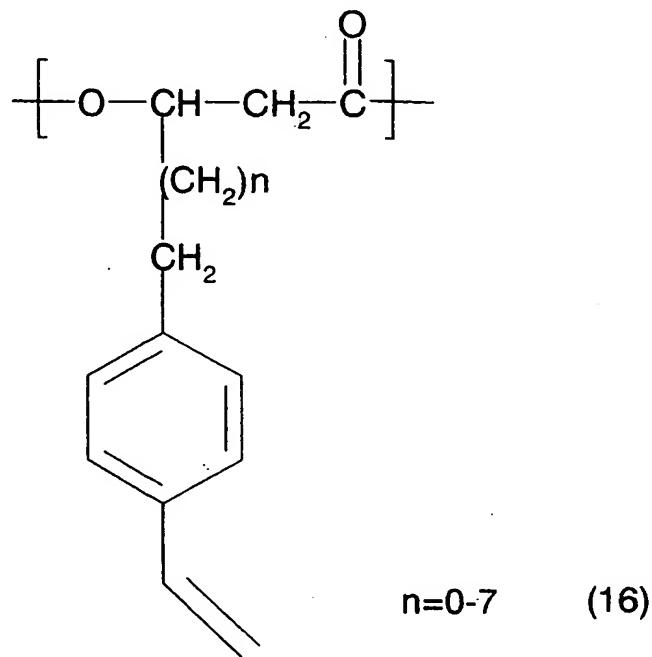
5. The polyhydroxyalkanoate according to claim 1, wherein a number average molecular weight of the polyhydroxyalkanoate is selected to fall in a range of 1000 to 1000000.

6. A process for preparing a polyhydroxyalkanoate represented by the chemical formula (1):



wherein  $n$  is an integer selected from 0 to 7;  $R_1$  is an H, Na or K atom; and when more than one unit exists,  $n$  and  $R_1$  may differ from unit to unit, respectively, the process comprising the steps of:

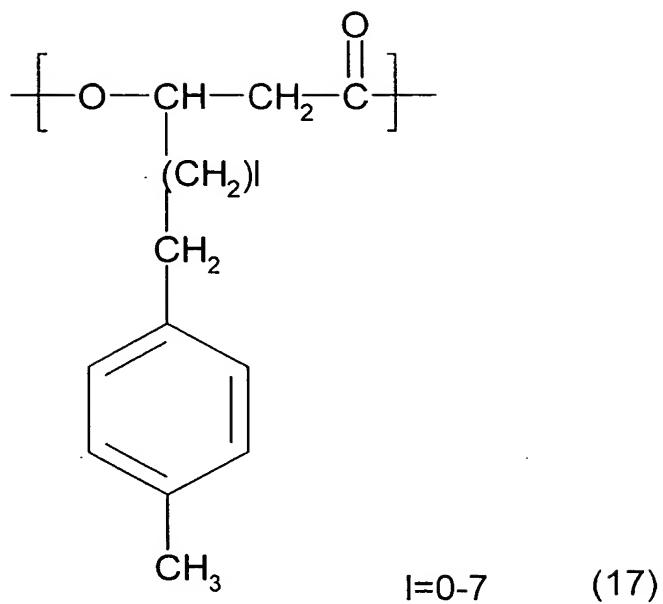
5 preparing, as a raw material, a 3-hydroxy- $\omega$ -(4-vinylphenyl)alkanoic acid unit represented by the chemical formula (16):



wherein  $n$  is an integer selected from 0 to 7; and when more than one unit exists,  $n$  may differ from unit to unit,

or

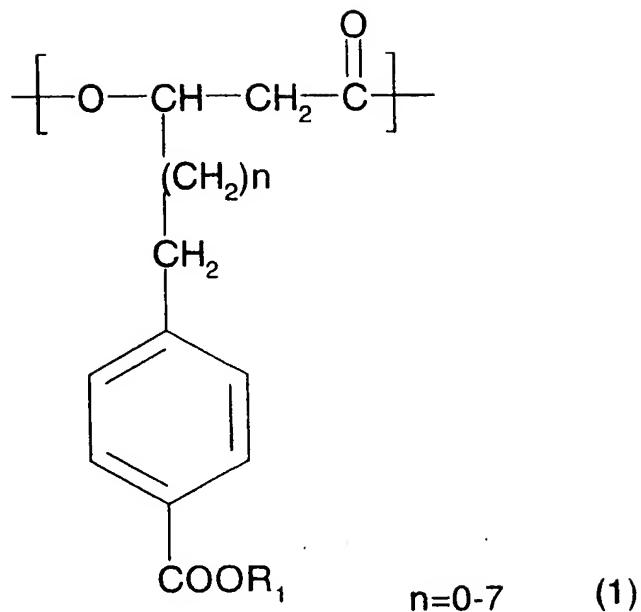
3-hydroxy- $\omega$ -(4-methylphenyl)alkanoic acid unit represented by the chemical formula (17):



wherein  $l$  is an integer selected from 0 to 7; and when more than one unit exists,  $l$  may differ from unit to unit; and

oxidizing the double bond portion of the polyhydroxyalkanoate represented by the chemical formula (16) or the methyl group portion of the polyhydroxyalkanoate represented by the chemical formula (17).

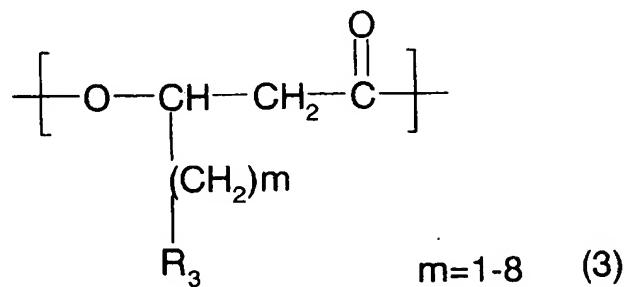
7. A process for preparing a polyhydroxyalkanoate comprising at least both 3-hydroxy- $\omega$ -(4-carboxyphenyl)alkanoic acid unit represented by the chemical formula (1):



wherein  $n$  is an integer selected from the range shown in the formula;  $R_1$  is an H, Na or K atom; and when more than one unit exists,  $n$  and  $R_1$  may differ from unit to unit, respectively,

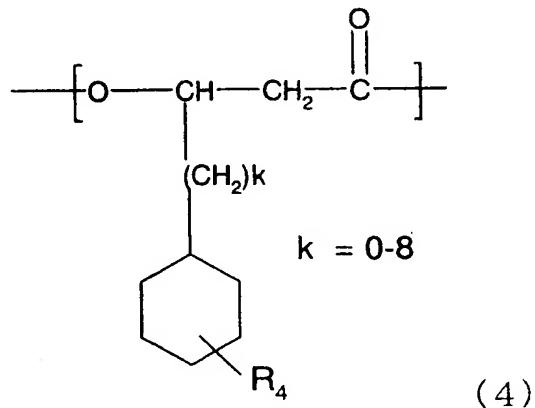
and

3-hydroxy- $\omega$ -substituted alkanoic acid units represented by the chemical formula (3):



wherein  $m$  is an integer selected from the range shown in the formula;  $R_3$  comprises a residue having a ring structure of either a phenyl or a thienyl structure;

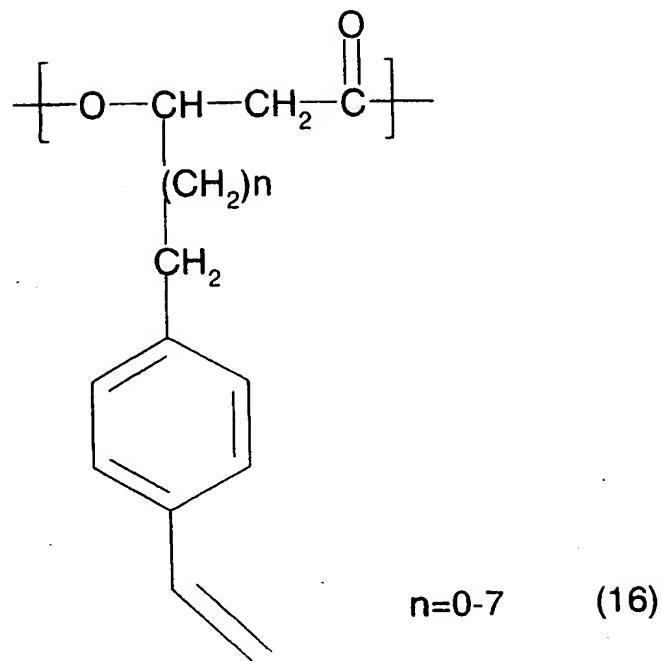
and when more than one unit exists,  $m$  and  $R_3$  may differ from unit to unit, respectively, or 3-hydroxy- $\omega$ -cyclohexylalkanoic acid units represented by the chemical formula (4):



wherein  $R_4$  represents a substituent on the cyclohexyl group and is an H atom, a CN group, an  $NO_2$  group, a halogen atom, a  $CH_3$  group, a  $C_2H_5$  group, a  $C_3H_7$  group, a  $CF_3$  group, a  $C_2F_5$  group or  $C_3F_7$  group;  $k$  is an integer selected from the range shown in the formula; and when more than one unit exists,  $R_4$  and  $k$  may differ from unit to unit, respectively,

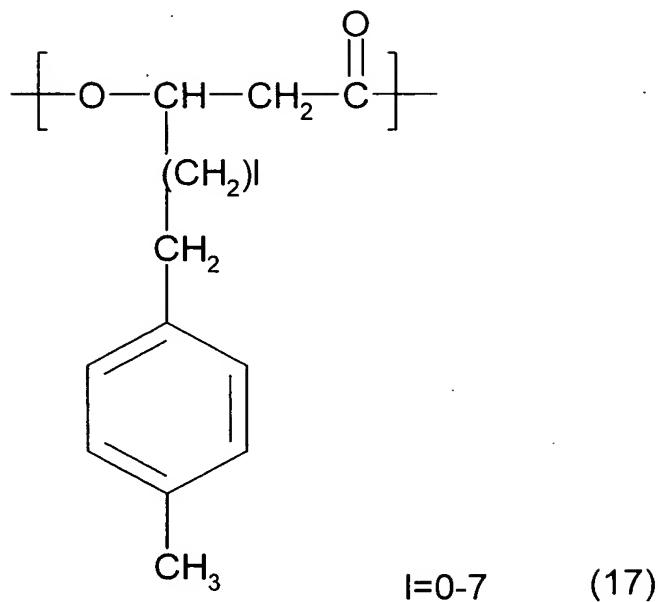
the process comprising the steps of:

preparing, as a raw material, a polyhydroxyalkanoate comprising at least both 3-hydroxy- $\omega$ -(4-vinylphenyl) alkanoic acid unit represented by the chemical formula (16):



wherein  $n$  is an integer selected from 0 to 7, and when more than one unit exists,  $n$  may differ from unit to unit,

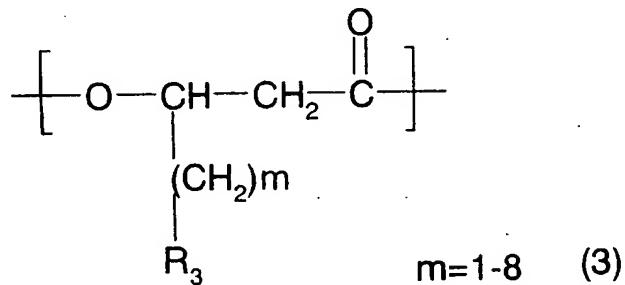
or 3-hydroxy- $\omega$ -(4-methylphenyl)alkanoic acid unit represented by the chemical formula (17) :



wherein  $l$  is an integer selected from 0 to 7; and when more than one unit exists,  $l$  may differ from unit to unit;

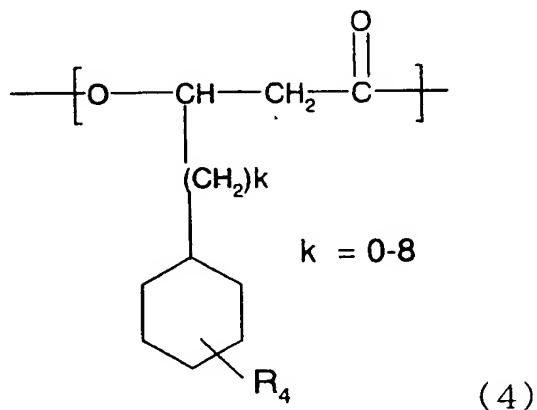
and

3-hydroxy- $\omega$ -substituted alkanoic acid unit represented by the chemical formula (3):



wherein  $m$  is an integer selected from the range shown in the formula;  $\text{R}_3$  comprises a residue having a ring structure of either a phenyl or a thiienyl structure; and when more than one unit exists,  $m$  and  $\text{R}_3$  may

differ from unit to unit, respectively, or 3-hydroxy- $\omega$ -cyclohexylalkanoic acid units represented by the chemical formula (4):



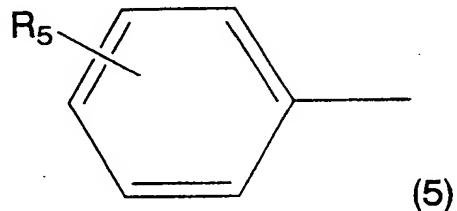
wherein  $\text{R}_4$  represents a substituent on the cyclohexyl group and is an H atom, a CN group, an  $\text{NO}_2$  group, a halogen atom, a  $\text{CH}_3$  group, a  $\text{C}_2\text{H}_5$  group, a  $\text{C}_3\text{H}_7$  group, a  $\text{CF}_3$  group, a  $\text{C}_2\text{F}_5$  group or  $\text{C}_3\text{F}_7$  group;  $k$  is an integer selected from the range shown in the formula; and when more than one unit exists,  $\text{R}_4$  may differ from unit to unit; and

oxidizing the double bond portion of the polyhydroxyalkanoate represented by the chemical formula (16) or the methyl group portion of the polyhydroxyalkanoate represented by the chemical formula (17).

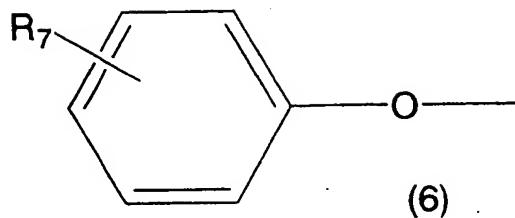
8. The process for preparing a polyhydroxyalkanoate according to claim 7, characterized in that  $\text{R}_3$  in the chemical formula (3),

namely a residue having a phenyl or a thienyl structure has at least any one chemical formula selected from the group consisting of chemical formulae (5), (6), (7), (8), (9), (10), (11), (12), 5 (13), (14) and (15),

wherein the chemical formula (5) is a group consisting of unsubstituted and substituted phenyl groups represented by

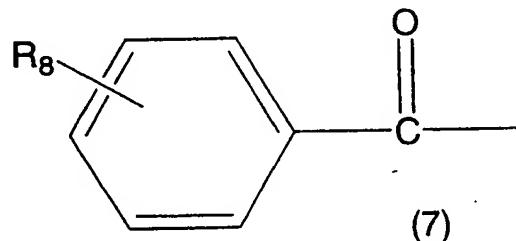


wherein  $R_5$  represents a substituent on the aromatic ring and is an H atom, a halogen atom, a CN group, an  $NO_2$  group, a  $CH_3$  group, a  $C_2H_5$  group, a  $C_3H_7$  group, a  $CH=CH_2$  group,  $COOR_6$  ( $R_6$  represents any one of H, Na and K atoms), a  $CF_3$  group, a  $C_2F_5$  group or a  $C_3F_7$  group; and when more than one unit exists,  $R_5$  may differ from unit to unit,  
 the chemical formula (6) is a group consisting of unsubstituted and substituted phenoxy groups represented by

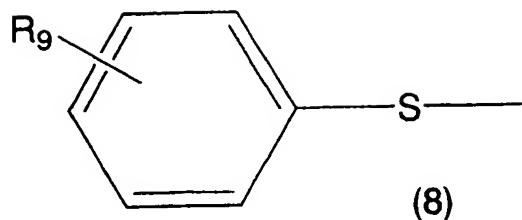


wherein  $R_7$  represents a substituent on the aromatic ring and is an H atom, a halogen atom, a CN group, an  $NO_2$  group, a  $CH_3$  group, a  $C_2H_5$  group, a  $C_3H_7$  group, an  $SCH_3$  group, a  $CF_3$  group, a  $C_2F_5$  group or a  $C_3F_7$  group; and when more than one unit exists,  $R_7$  may differ from unit to unit,

the chemical formula (7) is a group consisting of unsubstituted and substituted benzoyl groups represented by

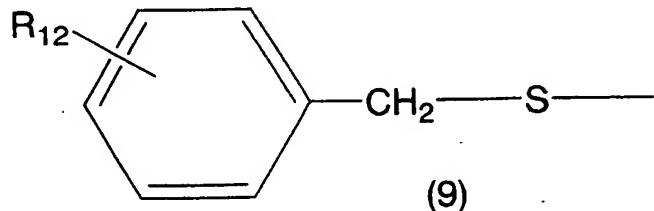


wherein  $R_8$  represents a substituent on the aromatic ring and is an H atom, a halogen atom, a CN group, an  $NO_2$  group, a  $CH_3$  group, a  $C_2H_5$  group, a  $C_3H_7$  group, a  $CF_3$  group, a  $C_2F_5$  group or a  $C_3F_7$  group; and when more than one unit exists,  $R_8$  may differ from unit to unit, the chemical formula (8) is a group consisting of unsubstituted and substituted phenylsulfanil groups represented by



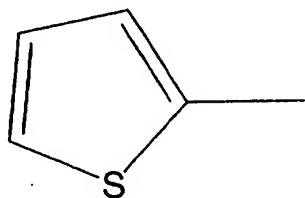
wherein  $R_9$  represents a substituent on the aromatic ring and is an H atom, a halogen atom, a CN group, an  $NO_2$  group, a  $COOR_{10}$ , an  $SO_2R_{11}$  ( $R_{10}$  represents any one of an H atom, an Na atom, a K atom, a  $CH_3$  group and a  $C_2H_5$  group and  $R_{11}$  represents any one of an OH group, an  $ONa$  group, an  $OK$  group, a halogen atom, an  $OCH_3$  group and  $OC_2H_5$  group), a  $CH_3$  group, a  $C_2H_5$  group, a  $C_3H_7$  group, a  $(CH_3)_2-CH$  group or a  $(CH_3)_3-C$  group; and when more than one unit exists,  $R_9$  may differ from unit to unit,

the chemical formula (9) is a group consisting of unsubstituted and substituted (phenylmethyl)sulfanil groups represented by



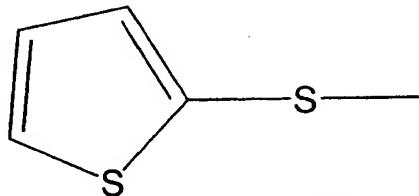
wherein  $R_{12}$  represents a substituent on the aromatic ring and is an H atom, a halogen atom, a CN group, an  $NO_2$  group, a  $COOR_{13}$ , an  $SO_2R_{14}$  ( $R_{13}$  represents any one of an H atom, an Na atom, a K atom, a  $CH_3$  group and a

$C_2H_5$  group and  $R_{14}$  represents any one of an OH group, an ONa group, an OK group, a halogen atom, an  $OCH_3$  group and  $OC_2H_5$  group), a  $CH_3$  group, a  $C_2H_5$  group, a  $C_3H_7$  group, a  $(CH_3)_2-CH$  group or a  $(CH_3)_3-C$  group; and 5 when more than one unit exists,  $R_{12}$  may differ from unit to unit,  
the chemical formula (10) is 2-thienyl group represented by



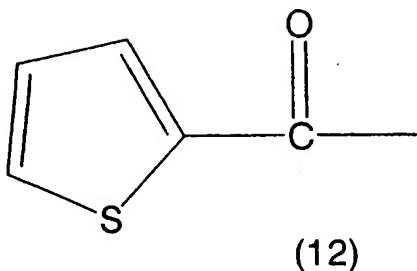
(10)

the chemical formula (11) is 2-thienylsulfanyl group represented by

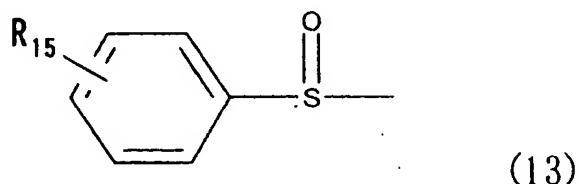


(11)

the chemical formula (12) is a 2-thienylcarbonyl group represented by

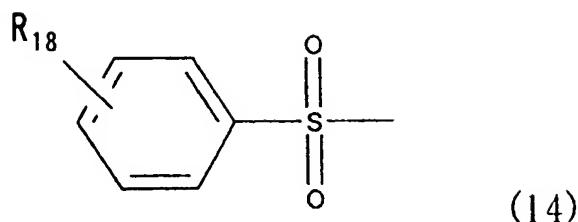


the chemical formula (13) is a group consisting of unsubstituted and substituted phenylsulfynyl groups represented by



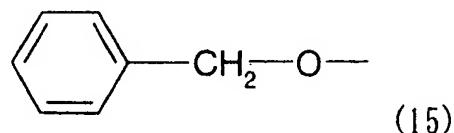
wherein  $R_{15}$  represents a substituent on the aromatic ring and is an H atom, a halogen atom, a CN group, an  $NO_2$  group, a  $COOR_{16}$ , an  $SO_2R_{17}$  ( $R_{16}$  represents any one of an H atom, an Na atom, a K atom, a  $CH_3$  group and a  $C_2H_5$  group and  $R_{17}$  represents any one of an OH group, an  $ONa$  group, an  $OK$  group, a halogen atom, an  $OCH_3$  group and  $OC_2H_5$  group), a  $CH_3$  group, a  $C_2H_5$  group, a  $C_3H_7$  group, a  $(CH_3)_2-CH$  group or a  $(CH_3)_3-C$  group; and when more than one unit exists,  $R_{15}$  may differ from unit to unit,

the chemical formula (14) is a group consisting of unsubstituted and substituted phenylsulfonyl groups represented by



wherein  $R_{18}$  represents a substituent on the aromatic ring and is an H atom, a halogen atom, a CN group, an  $NO_2$  group, a  $COOR_{19}$ , an  $SO_2R_{20}$  ( $R_{19}$  represents any one of an H atom, an Na atom, a K atom, a  $CH_3$  group and a  $C_2H_5$  group and  $R_{20}$  represents any one of an OH group, an  $ONa$  group, an  $OK$  group, a halogen atom, an  $OCH_3$  group and  $OC_2H_5$  group), a  $CH_3$  group, a  $C_2H_5$  group, a  $C_3H_7$  group, a  $(CH_3)_2-CH$  group or a  $(CH_3)_3-C$  group; and when more than one unit exists,  $R_{18}$  may differ from unit to unit, and

the chemical formula (15) is a group of a (phenylmethyl)oxy group represented by



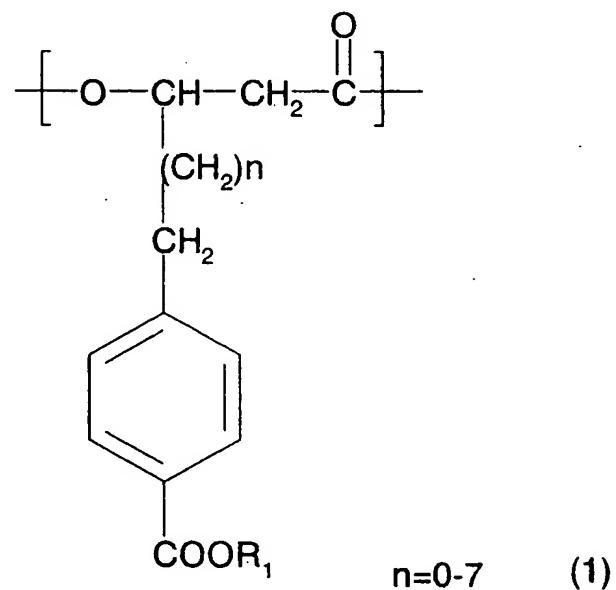
9. The process for preparing a polyhydroxyalkanoate according to claim 6, wherein the oxidizing step is carried out by using one or more oxidizing agents selected from the group consisting of permanganate, bichromate and periodate.

10. The process for preparing a polyhydroxyalkanoate according to claim 9, wherein the oxidizing step is carried out by using a permanganate, as an oxidizing agent, under acid 5 conditions.

11. The process for preparing a polyhydroxyalkanoate according to claim 6, wherein the oxidizing step is carried out by using ozone.

10

12. A resin composition comprising a resin (A) and a thermoplastic resin (B), the resin (A) being a polyhydroxyalkanoate that contains, in a polymer molecule thereof, at least one kind of unit of the 3-hydroxy- $\omega$ -(4-carboxyphenyl)alkanoic acid units 15 represented by the chemical formula (1):



wherein n is an integer selected from the range shown in the formula; R<sub>1</sub> is an H, Na or K atom; and when more than one unit exists, n and R<sub>1</sub> may differ from unit to unit, respectively.

5

13. The resin composition according to claim 12, wherein the polyhydroxyalkanoate is the one according to claim 2.

10

14. The resin composition according to claim 12, wherein the thermoplastic resin (B) comprises one or more resins selected from the group consisting of polyester-based resin, polystyrene-based resin, polypropylene-based resin, polyethylene terephthalate-based resin, polyurethane-based resin, polyvinyl-based resin and polyamide-based resin.

15

15. The resin composition according to claim 14, wherein the polystyrene-based resin is polystyrene.

20

16. The resin composition according to claim 12, wherein the polyester-based resin is poly- $\epsilon$ -caprolactone or polylactic acid.

25

17. The resin composition according to claim 12, further comprising additives for resin.

18. A molding molded from a resin composition according to claim 12.

19. The molding according to claim 18, wherein  
5 the molding is a container.

20. The molding according to claim 21, wherein  
the molding is at least any one selected from the  
group consisting of containers for foods, drinks,  
10 toiletries, drugs and cosmetics.

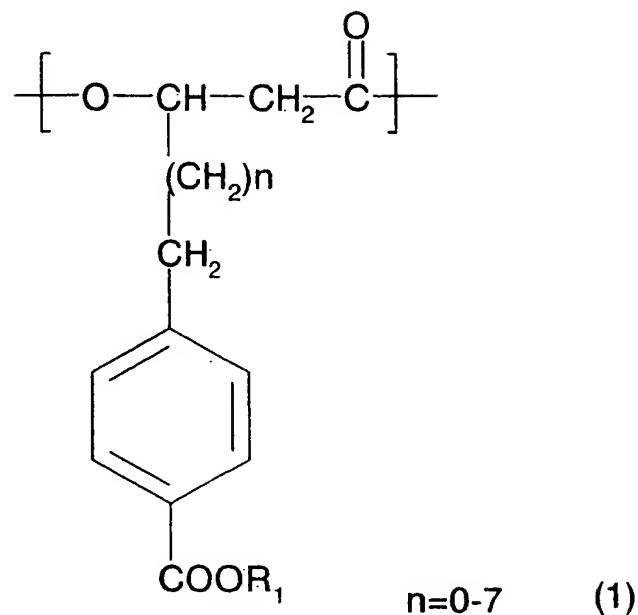
21. The molding according to claim 18, wherein  
the molding is biodegradable.

15 22. The molding according to claim 18, wherein  
the molding is used in a temperature environment of  
140°C or less.

23. A method of producing a molding comprising  
20 heating a resin composition according to claim 12 for  
molding.

24. A charge controlling agent for controlling  
a charged state of powder and granular materials, the  
25 agent comprising a polyhydroxyalkanoate that has at  
least one kind of unit selected from the group  
consisting of the 3-hydroxy- $\omega$ -(4-

carboxyphenyl)alkanoic acid units represented by the chemical formula (1):



wherein  $n$  is an integer selected from the range shown in the formula;  $R_1$  is an H, Na or K atom; and when more than one unit exists,  $n$  and  $R_1$  may differ from unit to unit, respectively.

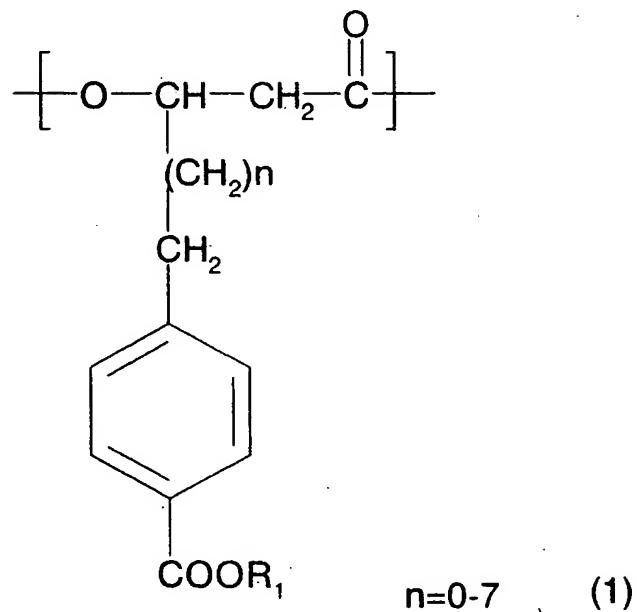
25. The charge controlling agent according to claim 24, wherein the polyhydroxyalkanoate is a polyhydroxyalkanoate according to claim 2.

26. The charge controlling agent according to claim 24, wherein the powder and granular material is a toner for developing electrostatic latent images.

27. A toner for developing an electrostatic latent image comprising at least a binder resin, a colorant and a charge controlling agent according to claim 24.

5

28. A binder resin for forming a resin-based powder and granular material comprising a polyhydroxyalkanoate whose polymer molecule comprises at least one kind of unit selected from the group 10 consisting of the 3-hydroxy- $\omega$ -(4-carboxyphenyl)alkanoic acid units represented by the chemical formula (1):



wherein n is an integer selected from the range shown in the formula; R<sub>1</sub> is an H, Na or K atom; and when more than one unit exists, n and R<sub>1</sub> may differ from

unit to unit, respectively.

29. The binder resin according to claim 28,  
wherein the polyhydroxyalkanoate is the one according  
5 to claim 2.

30. The binder resin according to claim 28,  
wherein the resin further comprises a thermoplastic  
resin, besides the polyhydroxyalkanoate, and a  
10 content of the polyhydroxyalkanoate is larger than  
that of the thermoplastic resin.

31. The binder resin according to claim 30,  
wherein the resin further comprises a resin  
15 composition according to claim 14.

32. The binder resin according to claim 30,  
wherein the thermoplastic resin is one or more  
selected from the group consisting of  
20 polycaprolactone and polylactic acid.

33. The binder resin according to claim 28,  
wherein the resin has a number average molecular  
weight of 2,000 or more and 300,000 or less.

25

34. The binder resin according to claim 28,  
wherein the binder resin has a glass transition point

of 30 to 80°C and a softening point of 60 to 170°C.

35. The binder resin according to claim 28,  
wherein the resin-based powder and granular material  
5 is a toner for developing electrostatic latent images.

36. A toner for developing electrostatic latent  
images containing a binder resin according to claim  
28.

10

37. An image forming method comprising at least  
the steps of:

15 charging an electrostatic latent image-holding  
member by applying voltage to a charging member from  
outside;

forming an electrostatic latent image on the  
charged electrostatic latent image-holding member;

20 developing the electrostatic latent image with a  
toner for developing electrostatic latent images to  
form a toner image on the electrostatic latent image-  
holding member;

transferring the toner image on the  
electrostatic latent image-holding member to a  
recording medium; and

25 fixing the toner image on the recording medium  
by heat,

wherein the toner is a toner according to claim

27.

38. The image forming method according to claim 37, wherein the transferring step comprises a first 5 transferring step of transferring the toner image on the electrostatic latent image-holding member to an intermediate transfer medium; and a second transferring step of transferring the toner image on the intermediate transfer medium to the recording 10 medium.

39. An image forming apparatus comprising at least charging means for charging an electrostatic latent image-holding member by applying voltage to a 15 charging member from outside; electrostatic latent image forming means for forming an electrostatic latent image on the charged electrostatic latent image-holding member; developing means for developing the electrostatic charge image with a toner for 20 developing electrostatic charge images to form a toner image on the electrostatic latent image-holding member; transferring means for transferring the toner image on the electrostatic latent image-holding member to a recording medium; and fixing means for 25 fixing the toner image on the recording medium by heat, wherein the toner for developing electrostatic charge images is a toner according to claim 27.

40. The image forming apparatus according to  
claim 39, wherein the transferring means comprises a  
first transferring means for transferring the toner  
image on the electrostatic latent image-holding  
5 member to an intermediate transfer medium; and a  
second transferring means for transferring the toner  
image on the intermediate transfer medium to the  
recording medium.